IN THE CLAIMS

1.    (Currently Amended) A computer-implemented method for enforcing policy over a computer network, the method ~~comprising~~ comprising:

selecting a dictionary, the dictionary including a plurality of concepts organized as a directed set, exactly one concept identified as a maximal element, and for each concept in the directed set, at least one chain ~~a plurality of chains~~ connecting the maximal element to the concept ~~other concepts in the directed set~~;

selecting a set of chains to form a basis spanning a topological vector space;

selecting at least one concept in the dictionary;

creating a state vector in ~~a~~ the topological vector space for each of the selected concepts, wherein each state vector includes at least one measure of how concretely the concept is represented in each chain in the basis;

assembling a first subset of the state vectors in the topological vector space into a template, the topological vector space including at least one state vector not in the template;

assigning a policy to the computer network;

monitoring a content stream on the computer network to construct an impact summary including a second subset of the state vectors in the topological vector space; and

enforcing the policy when the impact summary is within a threshold distance of the template.


2.    (Original)    A method according to claim 1, wherein assigning a policy includes assigning a policy to limit bandwidth on the computer network for content in the content stream within the threshold distance of the template.


3.    (Original)    A method according to claim 1, wherein assigning a policy includes assigning a policy to limit access to a document on the computer network within the threshold distance of the template.


4.    (Original)    A method according to claim 1, wherein monitoring a content stream includes monitoring metadata of the content stream.

5.　　(Previously Presented)　　A method according to claim 1, wherein monitoring a content stream includes:

monitoring a portion of the content stream on the computer network;

constructing the impact summary including the second subset of the vectors in the topological vector space from the portion of the content stream; and

extrapolating how close the entire content stream is to the template using the impact summary and the template.

6.　　(Canceled)

7.　　(Currently Amended) A computer-readable medium containing a program operable on a computer to enforce policy over a computer network, the program comprising:

selection software to select a dictionary, the dictionary including a plurality of concepts organized as a directed set, exactly one concept identified as a maximal element, and for each concept in the directed set, a plurality of chains at least one chain connecting the maximal element to the concept other concepts in the directed set;

selection software to select a set of chains to form a basis spanning a topological vector space;

selection software to select at least one concept in the dictionary;

creation software to create a state vector in a the topological vector space for each of the selected concepts, wherein each state vector includes as its components measures of how concretely the concept is represented in each chain in the basis;

definition software to define a template, the template including a first subset of state vectors in the topological vector space, the topological vector space including at least one state vector not in the template;

assignment software to assign a policy to the computer network;

monitoring software to monitor a content stream on the computer network to construct an impact summary including a second subset of the state vectors in the topological vector space; and

enforcement software to enforce the policy when the impact summary is within a threshold distance of the template.

8. (Original)     A program according to claim 7, wherein the assignment software includes assignment software to assign a policy to limit bandwidth on the computer network for content in the content stream within the threshold distance of the template.

9. (Original)     A program according to claim 7, wherein the assignment software includes assignment software to assign a policy to limit access to a document on the computer network within the threshold distance of the template.

10. (Original)     A program according to claim 7, wherein the monitoring software includes monitoring software to monitor metadata of the content stream.

11. (Previously Presented)     A program according to claim 7, wherein the monitoring software includes:
monitoring software to monitor a portion of the content stream on the computer network;
construction software to construct the impact summary including the second subset of the vectors in the topological vector space from the portion of the content stream; and
extrapolation software to extrapolate how close the entire content stream is to the template from the portion of the content stream using the impact summary and the template.

12. (Canceled)

13. (Currently Amended) An apparatus for enforcing policy over a computer network, the apparatus comprising:
a computer;
a directed set stored in the computer including a plurality of concepts, exactly one concept identified as a maximal element, and for each concept in the directed set, at least one chain a plurality of chains stored extending from the maximal element to the conceptother concepts in the directed set;

a basis spanning a topological vector space including a subset of the plurality of chains;

for at least one concept in the directed set, a state vector in a the topological vector space, wherein each state vector includes at least one measure of how concretely the concept is represented in each chain in the basis;

a template stored in the computer, the template including a first subset of the state vectors in the topological vector space, the topological vector space including at least one state vector not in the template;

a policy associated with the template;

a monitor installed in the computer adapted to monitor a content stream in the computer network to construct an impact summary including a second subset of the state vectors in the topological vector space; and

a policy enforcer adapted to enforce the policy when the monitor determines the impact summary to be within a threshold distance of the template.

14.    (Original)    An apparatus according to claim 13, wherein the monitor is adapted to monitor metadata about the content stream.

15.    (Original)    An apparatus according to claim 14, wherein the metadata about the content stream includes a percentage of the network dedicated to the content stream.

16.    (Previously Presented)    An apparatus according to claim 13, wherein:

the monitor is adapted to monitor only a portion of the content stream on the computer network and construct the impact summary including the second subset of the vectors in the topological vector space from the portion of the content stream; and

the policy enforcer is adapted to extrapolate how close the entire content stream is to the template using the impact summary and the template.

17.    (Canceled)

18.    (Canceled)

19. (Canceled)

20. (Canceled)

21. (Previously Presented)    A method according to claim 1, wherein enforcing the policy includes:

measuring a distance between the impact summary and the template; and

enforcing the policy if the distance is less than the threshold distance.

22. (Previously Presented)    A method according to claim 21, wherein measuring a distance includes using a Hausdorff distance function to measure the distance between the impact summary and the template.

23. (Previously Presented)    A program according to claim 7, wherein the enforcement software includes:

measurement software to measure a distance between the impact summary and the template; and

enforcement software to enforce the policy if the distance is less than the threshold distance.

24. (Previously Presented)    A program according to claim 23, wherein the measurement software includes measurement software to use a Hausdorff distance function to measure the distance between the impact summary and the template.

25. (Currently Amended) An apparatus according to ~~claim 1~~claim 13, wherein:

the policy enforcer includes a distance measurer to measure a distance between the impact summary and the template; and

the policy enforcer is adapted to enforce the policy if the distance is less than the threshold distance.

26.    (Previously Presented)    An apparatus according to claim 25, wherein the distance measurer includes a Hausdorff distance measurer to use a Hausdorff distance function to measure the distance between the impact summary and the template.

27.    (Previously Presented) A method according to claim 1, wherein:

defining a template includes defining the template, the template including the first subset of the vectors in the topological vector space, the first subset of the vectors including at least first and second vectors; and

monitoring a content stream includes constructing the impact summary including the second subset of the vectors in the topological vector space, the impact summary including at least third and fourth vectors.

28.    (Previously Presented)    A method according to claim 27, wherein enforcing the policy includes:

measuring a distance between the template including the first and second vectors, and the impact summary including the third and fourth vectors; and

enforcing the policy if the distance is less than the threshold distance.

29.    (Previously Presented) A program according to claim 7, wherein:

the definition software includes second definition software to define the template, the template including the first subset of the vectors in the topological vector space, the first subset of the vectors including at least first and second vectors; and

the monitoring software construction software to construct the impact summary including the second subset of the vectors in the topological vector space, the second subset of the vectors including at least third and fourth vectors.

30.    (Currently Amended) A program according to ~~claim 7~~claim 29, wherein the enforcement software includes:

measurement software to measure a distance between the template including the first and second vectors, and the impact summary including the third and fourth vectors; and

enforcement software to enforce the policy if the distance is less than the threshold distance.

31.    (Previously Presented) An apparatus according to claim 13, wherein:
the first subset of the vectors includes at least first and second vectors; and
the second subset of the vectors includes at least third and fourth vectors.

32.    (Previously Presented)      An apparatus according to claim 31, wherein:
the policy enforcer includes a distance measurer to measure a distance between the template including the first and second vectors, and the impact summary including the third and fourth vectors; and
the policy enforcer is adapted to enforce the policy if the distance is less than the threshold distance.